State of Utah

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Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN103350059-12

February 16, 2012

Ralph Grimmer
Tesoro Logistics Operations LLC
19100 Ridgewood Parkway
San Antonio, TX 78259

Dear Mr. Grimmer:

Re: Intent to Approve: Removal of Gasoline Loading Limit at TLR Under the Waxy Crude Processing Project
Project Number: N10335-0059

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an Approval Order. An invoice will follow upon issuance of the final Approval Order.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is John Jenks, who may be reached at (801) 536-4459.

Sincerely,

Martin D. Gray, Manager
New Source Review Section

MDG:JJ:kw

cc: Mike Owens
Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: Removal of Gasoline Loading Limit at TLR Under the Waxy Crude Processing Project

Prepared by: John Jenks, Engineer
Phone: (801) 536-4459
Email: jjenks@utah.gov

INTENT TO APPROVE NUMBER

DAQE-IN103350059-12

Date: February 16, 2012

Tesoro Refining and Marketing Company
Salt Lake City Refinery

Source Contact:
Michelle Bujdoso, Engineer
Phone: (801) 366-2036

Martin D. Gray, Manager
New Source Review Section
Utah Division of Air Quality

ABSTRACT

On December 21, 2011, Tesoro Refining and Marketing Company (Tesoro) submitted a revised NOI for the Waxy Crude Processing Project. Although the NOI was submitted primarily to modify DAQE-AN103350056-12 issued to the main refinery, included in the NOI was a request to remove a gasoline loading limit from the truck loading rack (TLR). The TLR is included in a separate AO issued to Tesoro Logistics Operations LLC. This is the only change requested by the December 21, 2011 NOI for this AO. The projected change in emissions was accounted for in the overall estimated actual emission increase from the Waxy Crude Processing Project and determined to comply with applicable requirements. The source is located in Salt Lake City, Salt Lake County, which is a nonattainment area for PM_{10}, $PM_{2.5}$ and SO_2, and a maintenance area for ozone and CO. The source is subject to federal NSPS, NESHAP and MACT requirements, and is defined as a major contributing source in the PM_{10} SIP. The PM_{10} SIP has established emission caps for PM_{10}, SO_2 and NO_x. The new and modified equipment will be included in these emission caps which shall remain at their present values. Total PTE from the entire refinery is estimated at the following TPY values: PM_{10} = 282, $PM_{2.5}$ (a subset of PM_{10}) = 154, NO_x = 638, SO_2 = 1637, CO = 1,376, VOC = 793. Tesoro is a major source of GHG emissions.

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Salt Lake Tribune and Deseret News on February 21, 2012. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

Name of Permittee:

Tesoro Refining and Marketing Company
474 W 900 N
Salt Lake City, UT 84103

Permitted Location:

Salt Lake City Refinery
474 West 900 North
Salt Lake City, UT 84103

UTM coordinates: 423,400 m Easting, 4,515,950 m Northing, UTM Zone 12
SIC code: 5171 (Petroleum Bulk Stations and Terminals)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]

I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of five (5) years. [R307-415-6a]

I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]

I.6 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

I.7 The owner/operator shall comply with UAC R307-150 Series. Inventories, Testing and Monitoring. [R307-150]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **Truck Loading Rack**
Includes northwest tank farm

II.A.2 **Tank 41: Storage vessel - chemicals**
Horizontal storage tank

II.A.3 **Tank 41T: Storage vessel - chemicals**
Horizontal storage tank

II.A.4 **Tank 42: Storage vessel - chemicals**
Horizontal storage tank

II.A.5 **Tank 401: Storage vessel - petroleum liquids**
Storage tank with fixed roof

II.A.6 **Tank 402: Storage vessel - petroleum liquids**
Storage tank with internal floating roof and primary seals

II.A.7 **Tank 405: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.8 **Tank 411: Storage vessel - petroleum liquids**
Storage tank with fixed roof

II.A.9 **Tank 412: Storage vessel - petroleum liquids**
Storage tank with internal floating roof and primary seals

II.A.10 **Tank 413: Storage vessel - petroleum liquids**
Storage tank with internal floating roof and primary seals

II.A.11 **Tank 414: Storage vessel - petroleum liquids**
Storage tank with internal floating roof and primary seals

II.A.12 **Tank 421: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.13 **Tank 422: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.14 **Tank 423: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.15 **Tank 424: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.16 **Tank 431: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.17 **Tank 432: Storage vessel - petroleum liquids**
Storage tank with external floating roof, primary and secondary seals

II.A.18 **Tank 503: Storage vessel - petroleum liquids**
Storage tank with internal floating roof, primary and secondary seals

II.A.19 **Tank 504: Storage vessel - petroleum liquids**
Storage tank with internal floating roof, primary and secondary seals

II.A.20 **Tank 505: Storage vessel - chemicals**
Horizontal storage tank

II.A.21 **Tank 506: Storage vessel - chemicals**
Horizontal storage tank

II.A.22 **Truck Loading Rack**
VOC emissions controlled by vapor collection and recovery system (VRU A and VRU B): includes LR11-04, LR11-06, LR11-05, LR11-10

II.B Requirements and Limitations

II.B.1 Conditions on Northwest Tank Farm and Truck Loading Rack

II.B.1.a For the primary seals, the accumulated area of gaps between the tank wall and the metallic shoe seal or the liquid-mounted seal shall not exceed ten (10) square inches per foot of tank diameter. The width of any portion of any gap shall not exceed one and a half (1½) inches. If the seal is a vapor mounted seal, the accumulated area of gaps between the tank wall and seal shall not exceed one (1) square inch per foot of tank diameter, and the width of any portion of any gap shall not exceed one-half (½)inch. [R307-327]

II.B.1.b For the secondary seals, the accumulated area of gaps between the tank wall and the secondary seal shall not exceed one (1) square inch per foot of tank diameter and the width of any portion of any gap shall not exceed one-half (½) inch. The secondary seals shall be properly installed and maintained according to the manufacturer's recommendations. [R307-327]

II.B.1.c The owner/operator shall comply with all applicable parts of R307-327 - Petroleum Liquid Storage. [R307-327]

II.B.1.d The additives tank #505 shall be limited to twelve (12) turnovers per year. [R307-401-8]

II.B.1.e The additives tank #506 shall be limited to seven (7) turnovers per year. [R307-401-8]

II.B.1.f The following production limits shall not be exceeded:

A. 72,000 gallons of gasoline additives throughput for storage tank #505 per rolling 12-month period

B. 42,000 gallons of gasoline additives throughput for storage tank #506 per rolling 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. Within 20 days of the beginning of each calendar month, the owner or operator shall calculate a new monthly total. The monthly total shall be added to the data from the previous 11 months. Records of the above limitations shall be kept for all periods when the plant is in operation. Records of the above limitations shall be made available to the Executive Secretary or his representative upon request and shall include a period of two years ending with the date of the request. The amount of gasoline loaded shall be recorded on a log. The throughput of the additives tank shall be recorded for every turnover. [R307-401-8]

II.B.1.g Emissions to the atmosphere from the carbon adsorption vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed an average of 10 milligrams of volatile organic compounds per liter of gasoline loaded over a six-hour period. The concentration of volatile organic compounds in the exhaust of the vapor collection system shall be measured by a monitoring device approved by the Executive Secretary. [R307-401-8]

II.B.1.h Stack testing shall be performed as specified in 40 CFR 63, Subpart CC, NESHAPs from Petroleum Refineries, Section 642(d). This regulation addresses initial performance tests and initial compliance determinations for owners and operators subject to Subpart CC. The owner

or operator shall provide a notification to the Executive Secretary of any test required by this AO at least 45 days before the test. A pretest conference shall be held if directed by the Executive Secretary. It shall be held at least 30 days before the test and include representation from the owner or operator, the tester, and the Executive Secretary. [R307-150]

II.B.1.i The owner or operator shall install, calibrate, maintain, and operate a monitoring device for the concentration of organic compounds in the exhaust air stream of the vapor collection system. The monitoring device must be located such that an inspector or operator can safely and easily read the output at any time. The accuracy, calibration method and calibration frequency of the monitoring device shall be approved by the Executive Secretary. [R307-150]

II.B.1.j The owner or operator shall install an alarm system to indicate malfunctions of vapor collection system. The alarm system shall be installed simultaneously with the monitoring device for the concentration of organic compounds in the exhaust air stream of the vapor collection system. The design of the alarm system shall be approved by the Executive Secretary. [R307-150]

II.B.1.k The Truck Loading Rack and Northwest Tank Farm are contiguous to the refinery and are considered to be part of the same source for inventory and Title V purposes. [R307-415]

Section III: APPLICABLE FEDERAL REQUIREMENTS

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), A: General Provisions
NSPS (Part 60), Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
NSPS (Part 60), J: Standards of Performance for Petroleum Refineries
NSPS (Part 60), K: Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978
NSPS (Part 60), Ka: Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
NSPS (Part 60), Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
NSPS (Part 60), GG: Standards of Performance for Stationary Gas Turbines
NSPS (Part 60), XX: Standards of Performance for Bulk Gasoline Terminals
NSPS (Part 60), GGG: Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and on or Before November 7, 2006
NSPS (Part 60), GGGa: Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
NSPS (Part 60), QQQ: Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
NESHAP (Part 61), M: National Emission Standard for Asbestos
NESHAP (Part 61), FF: National Emission Standard for Benzene Waste Operations
MACT (Part 63), A: General Provisions
MACT (Part 63), CC: National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

MACT (Part 63), UUU: National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units
Title V (Part 70) major source

PERMIT HISTORY

The final AO will be based on the following documents:

Is Derived From	Source Submitted NOI dated December 21, 2011
Supersedes	DAQE-AN103350055-11 dated December 7, 2011

ADMINISTRATIVE CODING

The following information is for UDAQ internal classification use only:

Salt Lake County
CDS A
MACT (Part 63), NSPS (Part 60), NESHAP (Part 61), Title V (Part 70) major source, Nonattainment or Maintenance Area, PM_{10} SIP / Maint Plan,

ACRONYMS

The following lists commonly used acronyms as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive Dust Control Plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds